



Meeting Summary

Project Title: SWSI Update
Prepared for: Colorado Water Conservation Board

Purpose of Meeting: Scenario Planning TAG Meeting
Date: September 25, 2017
Location: Denver West Conference Center
Time: 1:00 p.m. to 5:00 p.m.

Following is a general summary of input received during the Scenario Planning and Gap Analysis Methodology Technical Advisory Group (TAG) meeting on September 25, 2017. Specific comments from TAG participants and corresponding responses are provided as Attachment A. We appreciate the TAG participants' thoughtful contributions and all comments and recommendations will be carefully considered as we prepare the final Scenario Planning and Gap Analysis Technical Memorandum.

Scenario Process

- ❖ TAG reviewers asked if CWCB will provide direction to BRTs in regards to the development of BIPs. Greg Johnson/CWCB responded that CWCB is working on guidance to BRTs to aid in post-SWSI planning.
- ❖ During the drivers of change discussion, TAG reviewers mentioned that tying drivers to implications would be helpful. The SWSI Update technical team agreed to develop a graphic further explaining this.
- ❖ It was noted that the hot growth is obviously the worst case scenario, but how is a best case scenario defined? The SWSI Update team noted that both the Cooperative Growth and Adaptive Innovation are scenarios designed to test many positive future conditions.
- ❖ TAG reviewers asked how stream management can be integrated into scenario narratives or processes? The SWSI Update team stated that narrative descriptions were developed prior to the SWSI Update based on extensive input from a larger group of stakeholders and therefore cannot be changed at this time. However, the recommendation to consolidate scenarios will be taken under consideration for future scenario description efforts.
- ❖ TAG reviewers asked how the Environmental & Recreation (E&R) flow tool is being integrated into the scenario development process. The SWSI Update team indicated that stream flow at select representative nodes will be developed for each scenario. Flow data at E&R locations of interest will be compared by scenario against current conditions.
- ❖ TAG reviewers asked if the five scenarios and associated gap result are going to feed into a political decision making process by the State. For example, how will the scenarios and varying levels of results be used in this process? How will scenario results be communicated to Basin Round Tables? Greg Johnson/CWCB indicated that: 1) the SWSI technical work is not connected to policy 2) Benefit to BRTs: SWSI results will provide much more detailed data for project planning 3) CWCB is currently working on guidance to BRTs to aid in post-SWSI planning.

- ❖ No fatal flaws or major exceptions were noted on the proposed methodologies.

Population & M&SSI

- ❖ TAG reviewers suggested that the population projection methodology be clearly described with regards to parts of the methodology that use probabilistic projection approaches. The one area where this occurs is in the population estimates where the existing population forecast models are limited by the type of variables currently used to forecast population. A brief description of the background behind the selected approach will be provided.
- ❖ The SWSI Update team noted that each scenario assumes a different amount of future M&I conservation has occurred as part of the scenario definition. However, in most cases there is still remaining conservation opportunities that can be selected as a tool to address gaps by the BRTs. TAG reviewers stated that the final reports need to clearly articulate what conservation is assumed to have occurred and provide guidance on what amount may be remaining as an IPP.
- ❖ When extreme droughts have historically occurred, water users have temporarily agreed to extraordinary drought conservation measures to assist the water utilities during the drought times. TAG reviewers wondered how demand adaptation to weather conditions is incorporated into the modeling and scenario process. The team noted that this is not explicitly modeled, and that modeled demands are average year.

Agriculture

- ❖ The group asked how Alternative Transfer Methods (ATMs) will be modeled in the agricultural scenario analysis. The team explained that ATMs are not part the current SWSI Update work, but rather would be a future potential IPP to evaluate.
- ❖ “Planned Agricultural Projects” terminology will be revised to “Proposed New Agricultural Acres” to reduce confusion.
- ❖ TAG members discussed how crop types may changes as scenarios vary (i.e. warmer climates affecting crop choices) and how these variations could affect water demands. To evaluate this, the SWSI Update team will be developing a case study that investigates this issue in more detail.

Climate

- ❖ A brief review of the process used to select climate adjusted hydrology titled “Hot” and “In-between” occurred. TAG members did not take exception of using climate adjusted hydrology to test water supply and demand sensitivity. Some reviewers recommended that the SWSI Update Technical team generally describe the climate adjusted scenarios as “sensitivity scenarios” and limit the amount of highly technical language describing the climate modeling. The team discussed keeping the discussion short in further SWSI documents and refer the reader to appropriate reference documents for those interested in a higher level of detail.

Agricultural Case Studies

- ❖ TAG reviewers indicated that it might be helpful to have an agricultural case study dealing with technology/efficiency. The SWSI Update team indicated that the approach for considering agricultural efficiency would be discussed in detail during the Agricultural Diversion Demands TAG meeting. It is noted that the Agricultural TAG elected to explicitly model agricultural efficiencies for at least one of the scenarios.

Signposts

- ❖ The SWSI Update team noted that final selection of signposts and the monitoring of signposts is a post SWSI activity. However, some concepts of potential signposts are being listed at this time. A least one TAG reviewer indicated that ultimately, there should be some sign posts for the environment/biology and noted that a good starting point is to review what is already being used by other state agencies.
- ❖ TAG reviewers asked how often potential future signposts will be updated. Greg Johnson/CWCB indicated that CWCB is working on this and how to integrate signpost monitoring into larger CWCB planning efforts. Greg also noted that the CWP/BIP/SWSI update cycle is in motion with each component being updated periodically in sequence with the cycle. While this was originally proposed to occur approximately every six years in the Colorado Water Plan (one of the three planning efforts in process every two years), it is likely that the timing will need to be extended to appropriately accommodate each effort. Signpost monitoring is anticipated to be a part of future updates of each planning effort.
- ❖ Several TAG reviewers suggested that the SWSI Update technical team should consider retroactively looking at past planning efforts to start the signpost tracking process.